ABSTRACT

The method involves modifying an encryption key (Kc) in accordance with a given algorithm and in dependence on the ordinal number of a time slot to obtain a modified encryption key. A modified pseudo-random sequence is formed from the resultant modified encryption key. The modification is carried out in accordance with the aid of an encryption algorithm. A logical operation is performed on the modified pseudo-random sequence and for each block of the non-encrypted information. Preferably the operation is performed on the information block that belongs to the time slot whose ordinal number has been used to form the modified encryption key. As an additional option, the frame number can also be modified in accordance with a given algorithm and in dependence on the ordinal number of the relevant time slot. The method provides reliable encryption in TDMA mobile radio systems in which two or more time slots are used for one and the same transmission without requiring any substantial changes to signaling protocol and/or system equipment.